



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN THE APPLICATION OF:

QIONG CHENG ET. AL.

CASE NO.: CL2027USNA

APPLICATION NO.: 10/735442

CONFIRMATION NO.: 2513

GROUP ART UNIT: 1632

EXAMINER: UNASSIGNED

FILED: December 12, 2003

FOR: INCREASING CAROTENOID PRODUCTION IN BACTERIA VIA  
CHROMOSOMAL INTEGRATION

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In compliance with 37 C.F.R. §§1.97 and 1.98, Applicants bring to the attention of the U.S. Patent and Trademark Office the information listed on the enclosed PTO/SB/08A and/or PTO/SB/08B forms. A copy of the information, if required, is also enclosed. Consideration of the information is requested under 37 C.F.R. § 1.56 and this information is submitted in accord with the provisions of §1.97(b): within three months of filing the national application under 37 C.F.R. §1.53(d), or entry into the national stage under 37 C.F.R. §1.491, or before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action on the merits after filing a Request for Continued Examination under 37 C.F.R. §1.114.

If this Information Disclosure Statement is filed under §1.97(b) but the mailing date hereof is after the mailing of a first Office Action on the merits, the PTO is requested to consider this information accord with the provisions of §1.97(c): after the period specified in §1.97(b) but before the mailing of a Final Office Action, or a Notice of Allowance, or any other action that closes prosecution; in combination with the certification under subsection (e)(1) below.

I certify that each item of information contained in the information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.

Respectfully submitted,



**S. NEIL FELTHAM**

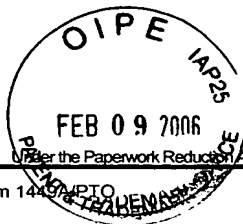
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Dated: 2/6/06  
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 1

### Complete if Known

Application Number 10/735442  
Filing Date December 12, 2003  
First Named Inventor QIONG CHENG  
Group Art Unit 1632  
Examiner Name UNASSIGNED  
Attorney Docket Number CL2027USNA

### U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup>	(if known)			
	1	US -	2002/0102690	08-01-2002	CHENG ET AL.	
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### FOREIGN PATENT DOCUMENTS

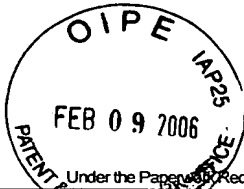
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		Country Code <sup>3</sup>	Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
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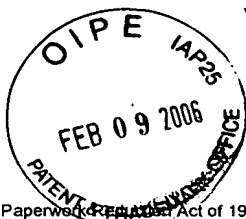
**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	1	LUAN TAO ET AL., ISOLATION OF CHROMOSOMAL MUTATIONS THAT AFFECT CAROTENOID PRODUCTION IN ESCHERICHIA COLI: MUTATIONS ALTER COPY NUMBER OF COLE1-TYPE PLASMIDS, FEMS MICROBIOLOGY LETTERS, VOL. 243:227-233, 2005, XP004724622	<input type="checkbox"/>
	2	MANUELA ALBRECHT ET AL., METABOLIC ENGINEERING OF THE TERPENOID BIOSYNTHETIC PATHWAY OF ESCHERICHIA COLI FOR PRODUCTION OF THE CAROTENOIDS BETA-CAROTENE AND ZEAXANTHIN, BIOTECHNOLOGY LETTERS, VOL. 21:791-795, 1999, XP009007299	<input type="checkbox"/>
	3	SUSUMU KAJIWARA ET AL., EXPRESSION OF AN EXOGENOUS ISOPENTENYL DIPHOSPHATE ISOMERASE GENE ENHANCES ISOPRENOID BIOSYNTHESIS IN ESCHERICHIA COLI, BIOCHEM. J., VOL. 324:421-426, 1997, XP002357865	<input type="checkbox"/>
	4	GERHARD SANDMANN, CAROTENOID BIOSYNTHESIS AND BIOTECHNOLOGICAL APPLICATION, ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, VOL. 385(1):4-12, 2001, XP002357867	<input type="checkbox"/>
	5	WILLIAM R. FARMER ET AL., IMPROVING LYCOPENE PRODUCTION IN ESCHERICHIA COLI BY ENGINEERING METABOLIC CONTROL, NATURE BIOTECHNOLOGY, VOL. 18:533-537, 2000, XP002269479	<input type="checkbox"/>
	6	XIAOLAN ZHANG ET AL., OLIGORIBONUCLEASE IS ENCODED BY A HIGHLY CONSERVED GENE IN THE 3'-5' EXONUCLEASE SUPERFAMILY, JOURNAL OF BACTERIOLOGY, VOL. 180(10):2779-2781, 1998, XP002357866	<input type="checkbox"/>
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10/735442

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